

## INFORMATION AUTOCOMPLETION SYSTEM

This application claims the benefit of U.S. Provisional Application No. 60/203,745, filed 12 May 2000, which provisional application is incorporated by reference herein.

### 5 Technical Field

The invention relates to electronic communication, information sharing, and collaboration between individuals. The invention particularly relates to facilitation of electronic messaging between individuals.

### 10 Background of the Invention

In most applications for electronic communication, the user must supply a destination address in the form of an e-mail address, a URL, an IP address, a fax number, or the like. While there are contact databases (commonly referred to as "address books") that  
15 accompany most such applications, there are few address books that can be used with more than one or two applications other than a primary application with which they are associated. Thus, a user must duplicate contact information in a plurality of address books and must usually provide at least a nickname for or a beginning of  
20 the destination address for an address book to provide a complete destination address in a destination field associated with a message. In addition, when one individual tries to send a message to another, the recipient is often not available by the method the sender selects. While e-mail and voice mail allow storage of the message until the  
25 recipient returns and retrieves the message, sometimes this is simply inadequate when the recipient might be reached by other methods.

## Summary of the Invention

The invention preferably provides a list of contacts in a central contact database and displays the list in a form that allows a user to view the list while accessing a plurality of communication,

- 5 information, and collaboration applications. Clicking on one of the contacts automatically fills in the recipient's contact information in a field enabled in accordance with the teachings of this invention (hereinafter referred to as a "one-click" enabled field). Typically, this will be the destination address field of any page with a one-click  
10 enabled address field. For example, if the user views a file transfer application, the user can click on "John" and the instant invention automatically fills in all relevant information for John, including such information as his network username or e-mail address. Then the user simply initiates file transfer.

## 15 Description of the Drawings

FIG. 1 is a schematic representation of the server, network, and clients used in the instant invention.

FIG. 2 is a schematic representation of the invention deployed in a server.

- 20 FIG. 3 is a schematic flow diagram of the process carried out by a preferred implementation of the invention.

FIG. 4 is a schematic screenshot of a calendar page of the invention showing a contacts listing on the left.

- 25 FIG. 5 is a schematic screenshot of a calendar event entry page of the invention showing a contacts listing on the left and a one-click enabled field on the right.

FIG. 6 is a schematic screenshot of a secure file transfer page of the invention showing a contacts listing on the left and a one-click enabled field on the right.

- 30 FIG. 7 is a schematic screenshot of a contact information manager page of the invention showing a contacts listing on the left.

## Description of the Invention

This invention provides an easy way to facilitate communication, collaboration, and information sharing. A user can send messages or share resources by simply clicking on a specific  
 5 contact in a list of contacts. The system uses the contact information to provide any required destination information. From the user standpoint, the user sees his or her list of contacts and clicks one contact as a destination. The name of a contact item (individual or group) or an appropriate address appears in a specific  
 10 field, such as the "To:" or "CC:" field of an e-mail message. The system can use the recipient information from the Information Distribution System of U.S. Patent Application number \_\_\_\_\_ filed concurrently herewith, contacts, or groups, and can be used with the Secure File Transfer System of U.S. Patent Application  
 15 number \_\_\_\_\_ filed concurrently herewith. The disclosures of the two above-mentioned applications (\_\_\_\_\_ and \_\_\_\_\_) are hereby incorporated by reference.

Every page enabled with the instant system has at least one default one-click enabled field. One-click enabled fields are page  
 20 elements that accept one-click and can be identified as enabled fields by tags, such as hypertext tags, in the source code of the page. (It should be noted, however, that this system is not based solely on the use of hypertext; other implementation mediums are possible as well.) I prefer to identify enabled fields in functions  
 25 embedded in the source code of a page including the fields. The way that a one-click enabled field is handled can be different for every page, or even for every enabled field on a page, which makes the instant system very flexible. If there are more than one one-click enabled field on a page (Target), then one-click is automatically  
 30 applied either to the one on which the user is focused at the time the user clicks or to a default enabled field if the user is not focused on an enabled field.

In the preferred embodiment, the system requires two parts: one includes a list of contacts and the other is a one-click enabled  
 35 page with one or more one-click enabled fields. Preferably, the list

of contacts is available to the user in the form of hot-linked contact listings. I prefer to keep the contact listing in a frame of a browser window or to have the contact listing at least appear in a consistent portion of related pages. However, the system does not require a browser. It could be contained in a desktop application without a browser. When a user clicks on one of the contacts, the contact list calls a function (e.g.-“OneClick”) that passes specific parameters to itself depending on what kind of contact is clicked (i.e.-group, card, or individual contact). For example, if a group contact is clicked, the function can pass all e-mail addresses of the group members to itself. This is an exemplary implementation of the “OneClick” function:

```
<SCRIPT LANGUAGE=JavaScript>
  //client JavaScript functions
  function OneClick (msg, id)
  { parent.ioffice_main.ProcessOneClick (msg, id) }
</SCRIPT>
```

called by an exemplary hot-linked contact named “John” as follows:

```
<a href='JavaScript:OneClick("John", "card:xly2zzz34567:");'>
```

The function “OneClick” calls a function “ProcessOneClick,” implemented in the Target page, and sends the new function essential parameters. The function “ProcessOneClick” defines the behavior of a given one-click enabled field and does all the work for filling in a corresponding one-click enabled field, such as “To:” in e-mail or “Share With:” in a shared files area. I prefer to implement both of these functions in JavaScript, but they could be implemented in another suitable scripting or programming language.

The “ProcessOneClick” function is preferably part of the source code of the Target page. If the page includes a one-click enabled field, the function uses the source code to determine what type of information the field is intended to receive and uses the parameters from the “OneClick” function to fill the field. If the “ProcessOneClick” function finds no one-click enabled field or has no suitable parameter, it fills no field. This is an exemplary implementation of the “ProcessOneClick” function that, in the case of the exemplary link above, adds “(Member) John” to a list of attendees in an “Attendees” field in an event on a web-based, one-click enabled calendar as shown in FIG. 5:

```

<script LANGUAGE="JavaScript">
//client JavaScript Functions
function ProcessOneClick(msg, id)
{
  //handles one click
  var type=id.substring(0, id.indexOf(":"));
  type = type.toLowerCase();
  var val=id.substring(id.indexOf(":")+1, id.lastIndexOf(":"));

  //msg - display name
  switch (type)
  {
    case "group":
      add_select_option(document.forms[0], 'Attendees', "(Group) "
        + msg, type + ":" + val, 28, false, false);
      break;
    case "card":
      add_select_option(document.forms[0], 'Attendees', "(Member) "
        + msg , type + ":" + val, 30, false, false);
      break;
    case "contact":
      add_select_option(document.forms[0], 'Attendees', "(Contact) "
        + msg , type + ":" + val, 30, false, false);
      break;
  }
  return;
}
</script>

```

I prefer to store the contacts in multiple databases on a central server connected to a computer network, such as the Internet, and render each database accessible to its subscribers whose client computers are also connected to the computer network and are equipped with software capable of receiving and interpreting the pages set up (such as hypertext based pages). In the preferred implementation, the instant invention interacts with a database to allow creation and deletion of records to the database. The Information Distribution System of U.S. Patent Application number \_\_\_\_\_ mentioned above is quite suitable for use with the instant system. It should be borne in mind that the instant invention need not be confined to contact information completion, but could conceivably be used with a variety of different types of information and types of fields to be completed.

Many variations are possible without exceeding the scope of the inventive concept described herein. For example, certain programming languages have been described with regard to the preferred embodiment. However, other suitable programming

languages, including but not limited to Java, XML, Visual Basic, VB Script, C, C++, C#, JavaScript, Python, ColdFusion, PHP, and ASP, could be used to implement the teachings of this patent.